BRUHAT BANGALORE MAHANAGARA PALIKE

Yelahanka Zone, Byatarayanapura Divison

NAME OF WORK:- Remodelling of Secondary drain on 3rd cross Bhadrappa layout in ward No. 8, Kodigehalli

Estimation Cost.Rs 4000000.00

Sl No	Description of work	Unit	Mesurement				Qty.	Rate	Amount
			No.		B	D			
1	Dismantling of flexible pavements and disposal of dismantled materials and stacking serviceable and unserviceable materials separately - Manual Means - Bituminous Course (PWD SR 2021-22 Vol -3 Pg No 9 item no 2.18 (I)(A)								
	3rd crs Bhadrappa layout	cum	1	203.00	1.90	0.045	17.35		
	Total	cum					17.35	1063.70	18455.19
	Basic rate	967.00							
	Area weightage 10%	96.70							
	Total	1063.70							
2	Dismantling of flexible pavements and disposalof dismantled materials and stacking serviceable and unserviceable materials separately - Manual Means - Granular course (PWD SR 2021-22 Vol -3 Pg No 9 item no 2.18 (I)(B)								
	3rd crs Bhadrappa layout	cum	1	203.00	1.90	0.23	88.71		
	Total	cum					88.71	750.20	66550.24
	Basic rate	682.00							
	Area weightage 10%	68.20							
	Total	750.20							
3	Earth work Excavation by manual means for drains,canals, waste weir, draft, approach channels, key trenches, foundation of bridges and such simillar works in all kinds of soils , as per drawing and technical specifications, including setting out, shoring, strutting, barricading, caution lights, removal of stumps and other deleterious matter, excavated surface leveled and sides neatly dressed disposing off the excavated stuff or sorting & stacking the selected stuff for reuse in a radius of 50 m and lift upto 1.5 m including cost of labour, tools & other appurtenaces required to complete the work. (PWD SR 2021-22 Vol -I Pg No 5 item no 1.4.1)								
	3rd crs Bhadrappa layout	cum	1	203.00	1.90	0.23	86.78		
	Vent desilting	cum	1	203.00	0.90	0.90	164.43		
	Desilting of side drains	cum	2	203.00	0.60	0.60	146.16		
	Total	cum					397.37	204.60	81301.90
	Basic rate	186.00							
	Area weightage 10%	18.60							
	Total	204.60							
4	Dismantling of existing structures like culverts, bridges, retaining walls and other structure comprising of masonry, cement concrete, wood work, steel work, including T&P and scaffolding wherever necessary, sorting the dismantled material, disposal of unserviceable material and **stacking the serviceable material** with all lifts and lead I By Manual Means B Cement Concrete Grade M-15 & M-20 (PWD SR 2021-22 Vol III Pg no 8 Item No 2.7 (I)(i) (C)								

Sl No	Description of work	Unit	Mesurement				Qty.	Rate	Amount
			No.		B	D			
	Existing RCC slabs	cum	1	185.00	1.50	0.225	62.43		
	Total	cum					62.43	2038.30	127251.06
	Basic rate	1853.00							
	Area weightage 10%	185.30							
	Total	2038.30							
5	Providing and laying in position Reinforced cement concrete for all Sub structures of building, Irrigation works, Sub structure works of bridges, Drain works & other parallel works from 0.50m to 3.50 m height. The granite/trap/basalt crushed graded coarse aggregates and fine aggregates as per relevant IS Codes machine mixed with super plasticisers, laid in layers, well compacted using needle vibrators, providing weep holes wherever necesary, including all lead & lifts, cost of all materials of quality, confirming to the requirements of relevant IS codes, labour, Usage charges of machinery, curing and all other appurtenances required to complete the work as per technical specifications. (The cost of steel reinforcement & formwork to be paid separately) Mix 1:2:4 (M15) Using 20 mm nominal size graded crushed coarse aggregates (V.I. No.2.4.1, P.No.17 of PWD SR 2021-22)								
	For coping above sidewall	cum	2	203.00	0.30	0.10	12.18		
	For coping above SSM	cum	2	203.00	0.45	0.10	18.27		
	Total	cum					30.45	6518.60	198491.37
	Basic rate	5926.00							
	Area weightage 10%	592.60							
	Total	6518.60							
6	Providing Coursed rubble masonry (first sort) with hard stone in foundation and plinth with Cement mortar 1:6 (1 cement : 6 coarse sand) ,(PWD SR 2021-22 Vol 2 Pg no 9 Item No 5.2								
	masonry wall	cum	2	203.00	0.45	0.300	54.81		
	Total	cum					54.81	6172.10	338292.80
	Basic rate	5611.00							
	Area weightage 10%	561.10							
	Total	6172.10							
7	Removing and Resetting of Footpath Slab / Removing and refixing 225mm thick slabs								
	Approved Rate on 18-06-2022 Approved rate : Rs 235.00 per Sqm								
	slab	Sqm	20	1.50	0.90		27.00		
	Net total	Sqm					27.00	235.00	6345.00
	Data rate	235.00							
8	Providing and fixing pre cast covering slab 250mm thick made out of RCC 1:2:4 and jelly 20mm down size with steel reinforcement including form work,curing,including cost of alll materials, labour,hire charges of machinery, loading, unloading, lead and lift,transportation etc., complete as directed by the Engineer in charge of the work.								
	For deck slab	Sqm	1	203.00	1.50		304.50		
	Deduct for existing slabs	Sqm	20	1.50	0.90		-27.00		
	Net Total	Sqm					277.50	5418.00	1503495.00
	Data rate	5418.00							
9	Removing and refixing slabs								

Sl No	Description of work	Unit	Mesurement				Qty.	Rate	Amount
			No.		B	D			
	Approved Rate on 18-06-2022 Approved rate : Rs 235.00 per Sqm								
	side drains	Sqm	2	1.90	0.75		2.85		
	Deduct 10% for broken slabs	Sqm					-0.28		
	Net total	Sqm					2.57	235.00	603.95
	Data rate	235.00							
10	Providing and Fixing pre cast Covering Slab made out of CC 1:2:4 with 10cm thick and Finishing cutting, including form work,curing,including cost of alll materials, labour,hire charges of machinery,loading,unloading,lead and lift,transportation etc ,copmplete. (Data Rate)								
	Replacing broken slabs	Sqm	1				0.28		
	Total	Sqm					0.28	1922.00	538.16
	Data rate	1922.00							
11	Providing, laying, spreading and compacting graded stone aggregate to Wet Mix Macadam specification including premixing the Material with water at OMC in mechanical mix plant carriage of mixed Material by tipper to site, laying in uniform layers with paver/grader in sub-base / base course on well prepared surface and compacting with vibratory roller to achieve the desired density MORTH Specification No. 406 (PWD SR 21-22 Vol III Pg no 24 Item No 4.27 (A))								
	For patching work	Cum	2	203.00	0.15	0.23	14.00		
		Cum					14.00	2633.40	36867.60
	Basic rate	2394.00							
	Area weightage 10%	239.40							
	Sub Total	2633.40							
12	Removal of all failed material, trimming of completed excavation to provide firm vertical faces, cleaning of surface, painting of tack coat on the sides and base of excavation as per clause 503, back filling the pot holes with hot bituminous material as per clause 504, compacting, trimming and finishing the surface to form a smooth continuous surface, all as per clause 3004.2(PWD SR 21-22 Vol 3 Pg no 75 Item No 10.5(ii)(Grading II Material .								
	For patching work	Sqm	2	203.00	0.15		60.90		
		Sqm					60.90	476.30	29006.67
	Basic rate	433.00							
	Area weightage 10%	43.30							
	Sub Total	476.30							
13	Providing and fixing steel work in built up tabular (round, square, rectangular hollow tubes etc.,) trussses etc., including cutting, hoisting, fixing in position and applying priming coat of approved primer coat, including welding and bolted with special shaped washer set etc., complete. Electric resistance, conduction butt welded tubes including cost of materials, labour usage, charges of machinery as per specifications and as per direction of Engineer in charge of the work. PWD SR 21-22 Vol -2, P.G no - 81, Item no 11.16.3								
	Considering 0.90m short tube and 1.20m long tube								
	Length of steel tube	m	1	0.90	1.20		2.10		
	Diameter of steel tube 1.0 m								
	Surface width = pie x d	m	1	3.14	1.00		3.14		
	Surface area = L x W	sqm	1	2.10	3.14		6.59		

Sl No	Description of work	Unit	Mesurement				Qty.	Rate	Amount
			No.		B	D			
	Qty of steel @ 71 kg /sqm for 1 U tube	kg	1	6.59	71.00		467.89		
	For 15 u steel tubes at different locations in swd	kg	15				7018.35	121.00	849220.35
	Data rate	121.00							
	Basic rate - 110 Area weightage - 11 Total = 121								
14	Loading and Unloading of Stone Boulder/Stone aggregates/ Sand/Kankar/Moorum. (Tipper 14 m3) (PWD SR 2021-22 Vol-III Page No.3, Item No.1.1C)								
	Qty Vide 90% of Item No-(1+2+3+9+20)	Cum					565.86		
	Total						565.86	81.40	46061.00
	Basic rate	74.00							
	Area Weightage 10%	7.40							
	Total	81.40							
15	Cost of Haulage Excluding Loading and Unloading Taking output 18 t load and lead 10 km = 180 t.km (PWD SR 2021-22 Vol-III Page No.3, Item No.1.4B)								
	Qty frm Item No-23	t.Km		565.86	1.28		724.30		
	Total						724.30	115.50	83656.65
	15Km 7*15	105.00							
	Area Weightage 10%	10.50							
	Total	115.50							
								Grand Total	3386136.94
								GST Charges (18% of estimated cost)	609504.64
									3995641.58
								Miscellenious and rounding	4358.42
								Total Amount	4000000.00
								RUPEES FORTY LAKHS ONLY	

CERTIFICATE:

1) The work spot has been inspected and found to be necessary
2) The work spot comes under B.B.M.P Limits
3) The provisions made in the estimate are necessary and minimum
4) The estimate is based on C.S.R of 2021-22 and Data Rates.

Assistant Engineer
Ward8, BBMP

Assistant Executive Engineer
Kodigehalli Sub Division, BBMP

Assistant Executive Engineer, Kodigehalli Sub Division, Yelahanka Zone, B.B.M.P., Bangalore.

Executive Engineer
Byatarayanapura Division BBMP

Administrative Approval
Accorded For RSWD Vlachenly
Head of A/C.....
CER NO : 17 Dt: 20.08.22

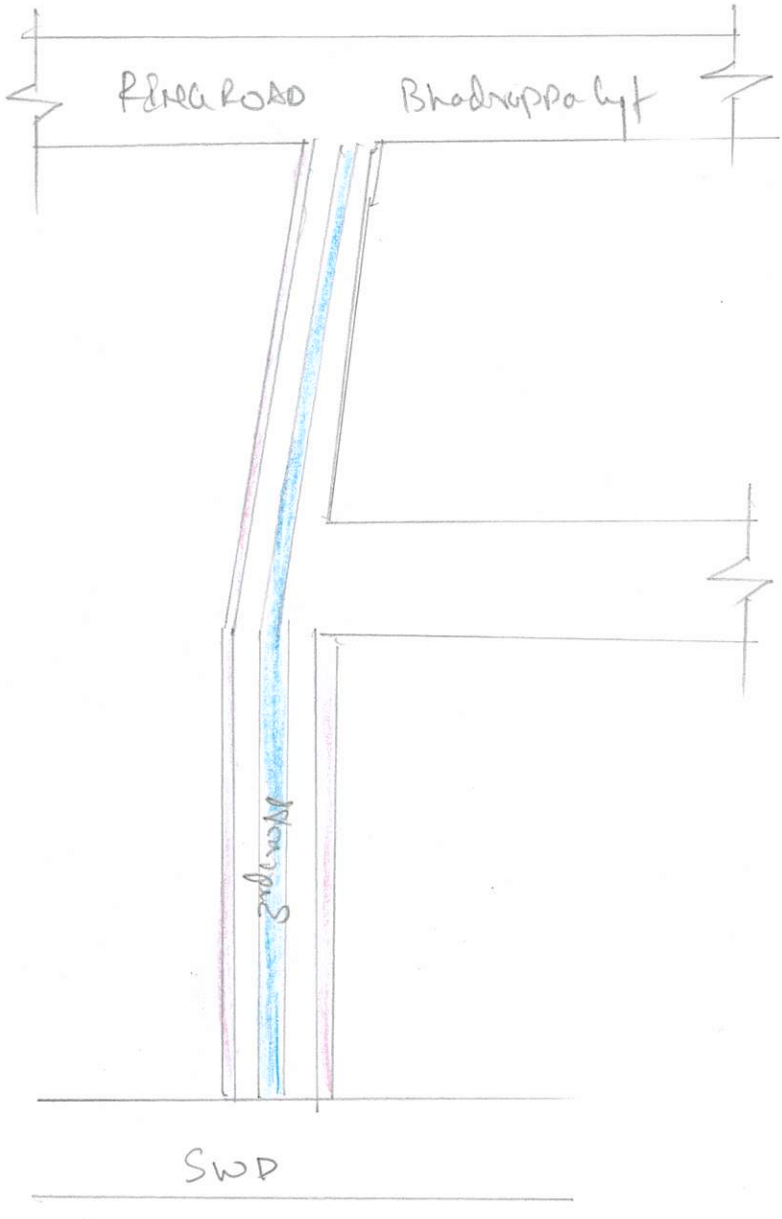
TA

CE (N/K)

Technical Sanction
Accorded For RSWD Vlachenly
Head of A/C.....
CER NO : 55 Dt: 20.08.22

TA

- Remodelling of 8th cross, Bhadrappalayout, Vandalo & Kodigehalli



- Side drain.
- Secondary Drain

JEN 8

Assistant Executive Engineer,
Kodigehalli Sub Division,
Yelahanka Zone, B.B.M.P.,
Bangalore.

BRUHAT BANGALORE MAHANAGARA PALIKE					
Executive Engineer - Project Division, Yelahanka Zone					
Rate Analysis for Removing and Resetting of Footpath Slab					
Sl No.	Description	Unit	Qty	Rate	Amount
	Removing and Resetting of Footpath Slab				
	Consider 10.00 Sqm				
	Labour				
A	Mazdoor (From Vol, Labour rates, unskilled no. 1, Pg No. A-52)	Day	1	486.22	486.22
B	Mazdoor light (Blacksmith Assistant) (From Vol, Labour rates, unskilled no. 2, Pg No. A-52)	Day	3	486.22	1458.66
			Total		1944.88
		Add Over Head Charges 10%			194.49
		Add Contractor's Profit 10% (10% of Total + Over Head Charges)			213.94
		Cost of Rs. 10.00 Sqm			2353.30
		Rate per Sqm			235.33
		Round Off			-0.33
		Net Rate Per Sqm			235.00

Rupees Two Hundred and Thirty Five Only

Certificate.

1 This DATA RATE as been prepared as per PWD SR, Bangalore circle for year 2021-22
2 The area comes within the Bruhat Bangalore Mahanagara Palike limits.
3 The provisions made in the estimate are necessary and essential.
4 The Above Rate Analysis is for preparation of Estimation Only.
5 The Above Rate Analysis Applicable for Yelahanka Zone Only.

Assistant Engineer

Asst Exec. Engineer

Executive Engineer

"Approved"

15/6/2022

ಅಧೀಕ್ಷಕ ಅಭಿಯಂತರರು
ಯಲಹಂಕ ವಲಯ
ಬೃಹತ್ ಬೆಂಗಳೂರು ಮಹಾನಗರ ಪಾಲಿಕೆ

Scanned with CamScanner

BRUHAT BANGALORE MAHANAGARA PALIKE

Executive Engineer - Project Division, Yelahanka Zone

Rate Analysis for Removing and Resetting of Kerb Stones

Sl No.	Description	Unit	Qty	Rate	Amount
	Removing and Resetting of Kerb Stones				
	Consider 10.00 m				
	Labour				
A	Mazdoor (From Vol, Labour rates, unskilled no. 1, Pg No. A-52)	Day	1	486.22	486.22
B	Mazdoor light (Blacksmith Assistant) (From Vol, Labour rates, unskilled no. 2, Pg No. A-52)	Day	1	486.22	486.22
			Total		**972.44**
		Add Over Head Charges 10%			97.24
		Add Contractor's Profit 10% (10% of Total + Over Head Charges)			106.97
		Cost of Rs. 10.00 m			**1176.65**
		Rate per m			117.67
		Round Off			0.33
		Net Rate Per m			**118.00**

Rupees One Hundred and Eighteen Only

Certificate.

1 This DATA RATE as been prepared as per PWD SR, Bangalore circle for year 2021-22
2 The area comes within the Bruhat Bangalore Mahanagara Palike limits.
3 The provisions made in the estimate are necessary and essential.
4 The Above Rate Analysis is for preparation of Estimation Only.
5 The Above Rate Analysis Applicable for Yelahanka Zone Only.

Assistant Engineer

Asst Exec. Engineer

Executive Engineer

" Approved "

15/6/2022

ಅಧೀಕ್ಷಕ ಅಭಿಯಂತರರು
ಯಲಹಂಕ ವಲಯ
ಬೃಹತ್ ಬೆಂಗಳೂರು ಮಹಾನಗರ ಪಾಲಿಕೆ

Scanned with CamScanner

BRUHAT BANGALORE MAHANAGARA PALIKE

Executive Engineer - Project Division, Yelahanka Zone

Rate Analysis for Removing Covering Slab of Drain and stacking

Sl No.	Description	Unit	Qty	Rate	Amount
	Removing B S Slab of Drain and stacking				
	Consider 10.00 Sqm				
	Labour				
A	Mazdoor (From Vol, Labour rates, unskilled no. 1, Pg No. A-52)	Day	1	486.22	486.22
B	Mazdoor light (Blacksmith Assistant) (From Vol, Labour rates, unskilled no. 2, Pg No. A-52)	Day	1	486.22	486.22
			Total		972.44
		Add Over Head Charges 10%			97.24
		Add Contractor's Profit 10% (10% of Total + Over Head Charges)			106.97
		Cost of Rs. 10.00 Sqm			1176.65
		Rate per Sqm			117.67
		Round Off			0.33
		Net Rate Per Sqm			118.00

Rupees One Hundred and Eighteen Only

Certificate.

1 This DATA RATE as been prepared as per PWD SR, Bangalore circle for year 2021-22
2 The area comes within the Bruhat Bangalore Mahanagara Palike limits.
3 The provisions made in the estimate are necessary and essential.
4 The Above Rate Analysis is for preparation of Estimation Only.
5 The Above Rate Analysis Applicable for Yelahanka Zone Only.

Assistant Engineer

Asst Exec. Engineer

Executive Engineer

"Approved"

18/6/2022

ಅಧೀಕ್ಷಕ ಅಭಿಯಂತರರು
ಯಲಹಂಕ ವಲಯ
ಬೃಹತ್ ಬೆಂಗಳೂರು ಮಹಾನಗರ ಪಾಲಿಕೆ

Scanned with CamScanner

BRUHAT BANGALORE MAHANAGARA PALIKE

Executive Engineer - Project Division, Yelahanka Zone

Rate Analysis for Removing and refixing cover slabs of drains and pointing in C.M (1:2)

Sl No.	Description	Unit	Nos	Length	Width	Qty	Rate	Amount
	Removing and Refixing Stone Slabs of drains and pointing in C.M (1:3)							
	Consider 10.00 Sqm							
	Labour							
A	Mazdoor (From Vol, Labour rates, unskilled no. 1, Pg No. A-52)	Day				1	486.22	486.22
B	Mazdoor light (Blacksmith Assistant) (From Vol, Labour rates, unskilled no. 2, Pg No. A-52)	Day				1	486.22	486.22
								972.44
		Add Over Head Charges 10%						97.24
		Add Contractor's Profit 10% (10% of Total + Over Head Charges)						106.97
	Consider Pointing 1:2 (10m*1.0m = 15Nos of 0.6m width of each Slab) Vol II, P No. 44, Item no.8.20 Providing Flush/ Ruled Pointing on stone slab ceiling with cement mortar 1:2(1 cement: 2 fine sand) after raking joints to depth nicely, lining, including cost of materials, labour, curing as per specifications and as per directions of Engineer-in charge	Sqm	15	1.00	0.02	0.3	113.00	33.90
						Total		1210.55
		Cost of Rs. 10.00 Sqm						1210.55
		Rate per Sqm						121.06
		Round Off						-0.06
		Net Rate Per Sqm						121.00

Rupees One Hundred and Twenty One Only

Certificate.

1 This DATA RATE as been prepared as per PWD SR, Bangalore circle for year 2021-22
2 The area comes within the Bruhat Bangalore Mahanagara Palike limits.
3 The provisions made in the estimate are necessary and essential.
4 The Above Rate Analysis is for preparation of Estimation Only.
5 The Above Rate Analysis Applicable for Yelahanka Zone Only.

Assistant Engineer

Asst Exec. Engineer

"Approved"

Executive Engineer

ಅಧೀಕ್ಷಕ ಅಭಿಯಂತರರು/ 8/6/2022
ದುಲಪಡಿ ಪಲಯ
ಬೃಹತ್ ಬೆಂಗಳೂರು ಮಹಾನಗರ ಪಾಲಿಕೆ

Scanned with CamScanner

BRUHAT BANGALORE MAHANAGARA PALIKE

RATE ANALYSIS

Providing B S slabs of selected quality roughly dressed havinf a size of 10 cms thick and fixed in cement mortar (1:6) including fixing curing ete., complete. as directed by the Engineer in Charge of the work (excluding GST and Area Leading Charges)

For One Day it requires Mazdoor Heavy -1 No, Mazdoor Light - 3 No for fixing 10sqm

Sl No	Description of work	Unit	No	Length m	Breadth m	Depth m	Quantity	Rate In Rs	Amount In Rs
A	MATERIAL COMPONENT								
1	Burnt stone slabs 10cms thick								
			1	10.00	1.00		10.00		
		sqm					10.00	430.00	4300.00
	Pg No A-14 It No 074 of PWD SR 2021-22 of Vol-2								
	Basic rate	*430.00*							
	For pointing of 10 sqm of Drain Cover Slab it requires 0.01 cum of CM (10X1X0.01X0.1)=0.01								
2	Cement								
	For 1cum of CM it requires 10.2 Bags of Cement								
	For 0.01 cum of CM it requires		=	10.2	X	0.01			
	kgs		=		0.102				
			1	0.10			0.10		
		Bag					0.10	447.00	44.70
	Pg No A-39 It No 29 of PWD SR 2021-22 of Vol-1								
	Basic rate	*447.00*							
3	Coarse Sand								
	For 1cum of CM it requires 1.07 cum of Sand								
	For 0.01 cum of CM it requires		=	1.07	X	0.01			
	cum		=		0.0107				
	at 0.43 cum		1	0.01			0.01		
		cum					0.01	1488.00	14.88
	Pg No A-41 It No 74 of PWD SR 2021-22 of Vol-1								
	Basic rate	*1488.00*							
B	LABOUR COMPONETS								
	For fixing of 10m Length of Slab it requires Mason- Class 2 of 1 No and Mazdoor heavy of 1 No and Mazdoor light of 2 No								
4	Mazdoor Heavy		1				1.00		
		Day					1.00	486.22	486.22
	Pg No A-52 It No 1 of PWD SR 2021-22								
	Basic rate	*486.22*							

Scanned with CamScanner

Sl No	Description of work	Unit	No	Length m	Breadth m	Depth m	Quantity	Rate In Rs	Amount In Rs
5	Mazdoor Light		4				4.00		
	(Slab Shifting 2, Mortar Mixing and Shifting 2)	Day					4.00	486.22	1944.88
	Pg No A-52 It No 2 of PWD SR 2021-22								
	Basic rate	*486.22*							
								A	6790.68
6	Add 1% Water Charges on A								67.91
								Sub Total 1	6858.59
								Over Head Charges at 10%	685.86
								Sub Total 1	7544.45
								Add Contractor's Profit 10% (10% of Total + Over Head Charges)	829.89
	For 10sqm						10.00	sqm Total	8374.34
							For 1 Sqm = 8298.9 / 10 =		837.43
								Say Rs.	837.00

Rupees Eight Hundred and Thirty Seven Only

Certificate.

1 This DATA RATE as been prepared as per PWD SR, Bangalore circle for year 2021-22
2 The area comes within the Bruhat Bangalore Mahanagara Palike limits.
3 The provisions made in the estimate are necessary and essential.
4 The Above Rate Analysis Is for preparation of Estimation Only.
5 The Above Rate Analysis Applicable for Yelahanka Zone Only.

Assistant Engineer

Assistant Executive Engineer

Executive Engineer

" Approved "

15/6/2022

Scanned with CamScanner

BRUHAT BANGALORE MAHANAGARA PALIKE

Executive Engineer Project Division, Yelahanka Zone

DATA RATE FOR PRECAST SLAB 10CM THICK

Sl No	Description of Items		No	Length	Width	Depth	Quantity	Rate	Amount
				m	m	m			
1	Providing and laying in position Reinforced cement concrete for all Super structures of building , Road works, Water works, Irrigation works & super structure works of bridges upto 3.50 m height. The granite/ trap/basalt crushed graded coarse aggregates and fine aggregates as per relevant IS Codes machine mixed with super plasticisers laid in layers, well compacted using needle vibrators. The cost includes all lead & lifts, cost of all materials, quality confirming to the requirements of relevant IS codes , labour, Usage charges of machinery, curing and all other appurtenances required to complete the work as per technical specifications. (The cost of steel reinforcement, dowel bars & formwork to be paid separately)M20 Design Mix Using 20 mm nominal size graded crushed coarse aggregates (V-I,P.No.17, I.No.2.5.1 of PW, P&IWTD S.R 2021-22)								
	Basic rate	6,471.00							
	Centring & Shuttering 5%	323.55							
		6,794.55							
	10% AW	679.46							
	Total	7,474.01							
		Cum							
			1	1.20	0.60	0.10	0.07		
							0.07	7,474.01	538.13
3	Supplying, Fitting and Placing un-coated TMT bar Reinforcement in sub-structure complete as per Drawing and Technical Specifications.(V-III, I.No 13.1 Page No 99, PWD SR 2021-22) Issue Rate:07-04-2022								
	Basic rate	103,329.00							
	10% AW	10,332.90							
	Total	113,661.90							
		Ton							
	12mm dia @125mm c/c	0.89 Kg/m	5	1.20		0.89	5.34		
	10mm dia @150mm c/c	0.61 Kg/m	8	0.60		0.61	2.93		
							8.27		
							0.008	113661.90	939.76
3	PVC pipe - OD 32mm and 10 Kg/sqcm(V-V , I.No 1178 Page No 34, BWSSB SR 2021-22)								
	Basic rate	33.00							
	10% AW	3.30							
	Total	36.30							

Scanned with CamScanner

Sl No	Description of Items		No	Length	Width	Depth	Quantity	Rate	Amount
				m	m	m			
		Mtr							
	Pipe For Weep Hole		4	0.10			0.40		
							0.40	36.30	14.52
								Total	1,492.40

Therefore Cost for Per Sqm = Total /(1.8*0.6) $\frac{1,492.40}{(1.2*0.6)}$ 2072.78

Say 2072.00

Rupees Two Thousand and Seventy Two Only Per Sqm

Certificate.

1 This DATA RATE as been prepared as per PWD SR, Bangalore circle for year 2021-22
2 The area comes within the Bruhat Bangalore Mahanagara Palike limits.
3 The provisions made in the estimate are necessary and essential.
4 The Above Rate Analysis is for preparation of Estimation Only.
5 The Above Rate Analysis Applicable for Yelahanka Zone Only.

Assistant Engineer

Asst Exec. Engineer

Executive Engineer

"Approved"

13/6/2022

Scanned with CamScanner

BRUHAT BANGALORE MAHANAGARA PALIKE

Executive Engineer Project Division, Yelahanka Zone

DATA RATE FOR PRECAST SLAB 15CM THICK

Sl No	Description of Items		No	Length	Width	Depth	Quantity	Rate	Amount
				m	m	m			
1	Providing and laying in position Reinforced cement concrete for all Super structures of building , Road works, Water works, Irrigation works & super structure works of bridges upto 3.50 m height. The granite/ trap/basalt crushed graded coarse aggregates and fine aggregates as per relevant IS Codes machine mixed with super plasticisers laid in layers, well compacted using needle vibrators. The cost includes all lead & lifts, cost of all materials, quality confirming to the requirements of relevant IS codes , labour, Usage charges of machinery, curing and all other appurtenances required to complete the work as per technical specifications. (The cost of steel reinforcement, dowel bars & formwork to be paid separately)M20 Design Mix Using 20 mm nominal size graded crushed coarse aggregates (V-I,P.No.17, I.No.2.5.1 of PW, P&IWTD S.R 2021-22)								
	Basic rate	6,471.00							
	Centring & Shuttering 5%	323.55							
		6,794.55							
	10% AW	679.46							
	Total	**7,474.01**							
		Cum							
			1	1.20	0.60	0.15	0.11		
							0.11	7,474.01	807.19
2	Supplying, Fitting and Placing un-coated TMT bar Reinforcement in sub-structure complete as per Drawing and Technical Specifications.(V-III, I.No 13.1 Page No 99, PWD SR 2021-22) Issue Rate:07-04-2022								
	Basic rate	103,329.00							
	10% AW	10,332.90							
	Total	**113,661.90**							
		Ton							
	12mm dia @125mm c/c	0.89 Kg/m	5	1.20		0.89	5.34		
	10mm dia @125mm c/c	0.61 Kg/m	10	0.60		0.61	3.66		
							9.00		
							0.009	113661.90	1,022.96
3	PVC pipe - OD 32mm and 10 Kg/sqcm(V-V , I.No 1178 Page No 34, BWSSB SR 2021-22)								
	Basic rate	33.00							
	10% AW	3.30							
	Total	**36.30**							
		Mtr							

Scanned with CamScanner

Sl No	Description of Items		No	Length	Width	Depth	Quantity	Rate	Amount
				m	m	m			
	Pipe For Weep Hole		4	0.10			0.40		
							0.40	36.30	14.52
								Total	1,844.67

Therefore Cost for Per Sqm = Total /(1.8*0.6) $\frac{1,844.67}{(1.2*0.6)}$ = 2562.04

Say 2562.00

Rupees Two Thousand Five Hundred and Sixty Two Only Per Sqm

Certificate.

1 This DATA RATE as been prepared as per PWD SR, Bangalore circle for year 2021-22
2 The area comes within the Bruhat Bangalore Mahanagara Palike limits.
3 The provisions made in the estimate are necessary and essential.
4 The Above Rate Analysis is for preparation of Estimation Only.
5 The Above Rate Analysis Applicable for Yelahanka Zone Only.

Assistant Engineer

Asst Exec. Engineer

Executive Engineer

"Approved"

ಅಧೀಕ್ಷಕ ಅಭಿಯಂತರರು
ಯಲಹಂಕ ವಲಯ
ಬೃಹತ್ ಬೆಂಗಳೂರು ಮಹಾನಗರ ಪಾಲಿಕೆ

Scanned with CamScanner

BRUHAT BANGALORE MAHANAGARA PALIKE

Executive Engineer Project Division, Yelahanka Zone

DATA RATE FOR PRECAST SLAB 23CM THICK

Sl No	Description of Items		No	Length	Width	Depth	Quantity	Rate	Amount
				M	M	M			
1	Providing and laying in position Reinforced cement concrete for all Super structures of building , Road works, Water works, Irrigation works & super structure works of bridges upto 3.50 m height. The granite/ trap/basalt crushed graded coarse aggregates and fine aggregates as per relevant IS Codes machine mixed with super plasticisers laid in layers, well compacted using needle vibrators. The cost includes all lead & lifts, cost of all materials, quality confirming to the requirements of relevant IS codes , labour, Usage charges of machinery, curing and all other appurtenances required to complete the work as per technical specifications. (The cost of steel reinforcement, dowel bars & formwork to be paid separately)M25 Design Mix Using 20 mm nominal size graded crushed coarse aggregates (V-I,P.No.17, I.No.2.5.1 of PW, P&IWTD S.R 2021-22)								
	Basic rate	6,471.00							
	Centring & Shuttering 5%	323.55							
		6,794.55							
	10% AW	679.46							
	Total	7,474.01							
		Cum							
			1	1.80	0.60	0.23	0.25		
							0.25	7,474.01	1,856.54
2	Supplying, Fitting and Placing un-coated TMT bar Reinforcement in sub-structure complete as per Drawing and Technical Specifications.(V-III, I.No 13.1 Page No 99, PWD SR 2021-22) Issue Rate:07-04-2022								
	Basic rate	103,329.00							
	10% AW	10,332.90							
	Total	113,661.90							
		Ton							
	16mm dia @150mm c/c	1.58 Kg/m	8	1.80		1.58	22.75		
	10mm dia @150mm c/c	0.61Kg/m	24	0.60		0.61	8.78		
							31.54		
							0.032	113661.90	3,584.44
								Total	5,440.98

Therefore Cost for Per Sqm = Total /(1.8*0.6) $\frac{5,440.98}{(1.8*0.6)}$ = 5037.95

Say **5037.00**

Rupees Five Thousand and Thirty Seven Only Per Sqm

Certificate.

1 This DATA RATE as been prepared as per PWD SR, Bangalore circle for year 2021-22
2 The area comes within the Bruhat Bangalore Mahanagara Palike limits.
3 The provisions made in the estimate are necessary and essential.
4 The Above Rate Analysis is for preparation of Estimation Only.
5 The Above Rate Analysis Applicable for Yelahanka Zone Only.

Assistant Engineer | Asst Exec. Engineer | Executive Engineer

"Approved"

18/6/2022

Scanned with CamScanner

BRUHAT BANGALORE MAHANAGARA PALIKE

Executive Engineer Project Division, Yelahanka Zone

DATA RATE FOR PRECAST BOLLARDS

Sl No	Description of Items	No	Length M	Width M	Depth M	Quantity	Rate	Amount
1	Providing and laying in position **plain cement concrete** for levelling course for all works in foundation. The granite/trap/basalt crushed graded coarse aggregates and fine aggregates as per relevant IS Codes machine mixed, laid in layers not exceeding 150 mm thickness, well compacted using plate vibrators, including all lead & lifts, cost of all materials of quality, labour, Usage charges of machineries, curing, and all the other appurtenances required to complete the work as per technical specifications. (The cost of steel reinforcement & formwork shall be paid separately) Mix **1:3:6 (M10) Using 20 mm** nominal size graded crushed coarse aggregates (V-I Page No.15, Item No.2.1.4 of PWD SR 2021-22)								
	Basic rate	5926.00							
	10% AW	592.60							
	Total	6,518.60							
		Cum							
	BY Considering 10 Nos Bollards								
	For Foundation		10	0.096		0.45	0.43		
	Deduct Bollard Qty		-10	0.018		0.30	-0.05		
							0.38	6,518.60	2,464.03
2	Providing and laying in position Reinforced cement concrete for all Super structures of building , Road works, Water works, Irrigation works & super structure works of bridges upto 3.50 m height. The granite/ trap/basalt crushed graded coarse aggregates and fine aggregates as per relevant IS Codes machine mixed with super plasticisers laid in layers, well compacted using needle vibrators. The cost includes all lead & lifts, cost of all materials, quality confirming to the requirements of relevant IS codes , labour, Usage charges of machinery, curing and all other appurtenances required to complete the work as per technical specifications. (The cost of steel reinforcement, dowel bars & formwork to be paid separately)M25 Design Mix Using 20 mm nominal size graded crushed coarse aggregates (V-I,P.No.17, I.No.2.5.1 of PW, P&IWTD S.R 2021-22)								
	Basic rate	6,471.00							
	Centring & Shuttering 5%	323.55							
		6,794.55							
	10% AW	679.46							
	Total	7,474.01							
	Bollards		10	0.018		1.20	0.22		
							0.22	7,474.01	1,614.39
3	Supplying, Fitting and Placing un-coated **TMT bar Reinforcement** in sub-structure complete as per Drawing and Technical Specifications.(V-III, I.No 13.1 Page No 99, PWD SR 2021-22) Issue Rate:07-04-2022								
	Basic rate	103,329.00							
	10% AW	10,332.90							
	Total	113,661.90							
		Ton							
	For Bollards								
	3Nos 12mm Vertical ro	0.889Kg/m	30	1.25		0.889	33.34		
	10mm dia @150mm c/c	0.395Kg/m	93	0.44		0.395	16.16		
							49.50		
							0.050	113661.90	5,626.37

Scanned with CamScanner

Sl No	Description of Items		No	Length M	Width M	Depth M	Quantity	Rate	Amount
4	Painting two coats after filling the surface with synthetic enamel paint in all shades on new plastered concrete surfaces (V-III, P.No.56, I.No 8.10 of PW, PWD SR 2021-22)								
	Basic rate	85.00							
	Area Weightage 10%	8.5							
	Total	93.50							
		Sqm							
	For Bollards								
			10	0.471		0.90	4.24		
							4.24	93.50	396.35
5	Labuour Charge For Fixing								
	Mason Class-1	Per Day	1				1.00	496.22	496.22
	Mazdoor light (Blacksmith Assistant)	Per Day	3				3.00	486.22	1,458.66
6	Transportation Charges (Tractor)								
	Consider One Tractor Load as 30 Bollards (For 10 Bollards 4/3 =2)	Hour		2.00			2.00	510.04	1,020.08
									13,076.09
								Add Over Head Charges 10%	1307.61
								Add Contractor's Profit 10% (10% of Total + Over Head Charges)	1438.37
								Total	15822.07

Therefore Cost for Per Bollards = Total /10Nos

$$\frac{15,822.07}{10} = 1582.21$$

Say 1582.00

Rupees One Thousand Five Hundred and Eighty Two Only

Certificate.

1 This DATA RATE as been prepared as per PWD SR, Bangalore circle for year 2021-22
2 The area comes within the Bruhat Bangalore Mahanagara Palike limits.
3 The provisions made in the estimate are necessary and essential.
4 The Above Rate Analysis is for preparation of Estimation Only.
5 The Above Rate Analysis Applicable for Yelahanka Zone Only.

Assistant Engineer

Asst Exec. Engineer

Executive Engineer

"Approved"

9/6/2022

Scanned with CamScanner

BRUHAT BANGALORE MAHANAGARA PALIKE

RATE ANALYSIS FOR KERBS

Providing and fixing pre cast solid cement concrete kerb stones made out of M20 with top and bottom width 114 and 165 mm respectively, 400mm high and 450mm in length finished with CM 1:3 plastering and finishing cutting including formwork, curing, including cost of materials, labour charges of machinery, loading and unloading, lead and lift, transportation etc.,complete as directed by the Engineer in Charge of the work (excluding GST and Area Leading Charges)

Considering 25 cum of Output per day

Sl No	Description of work	Unit	No	Length m	Breadth m	Depth m	Quantity	Rate In Rs	Amount In Rs
A	MATERIAL COMPONENT								
1	Cement								
	For M20 Cement Required is 320kg/cum								
	For 25 cum, Cement Required is		=	25	X	320			
	kgs		=		8000				
	One Bag = 50 kgs								
	No of Bags For 86400 kgs		=	8000 / 50	=	160			
			1	160.00			160.00		
		Bag					160.00	447.00	71520.00
	Pg No A-39 It No 29 of PWD SR 2021-22 of Vol-1								
	Basic rate	*447.00*							
2	Coarse Sand								
	at 0.43 cum		1	10.75			10.75		
	25 x 0.43 = 10.75								
		cum					10.75	1488.00	15996.00
	Pg No A-41 It No 74 of PWD SR 2021-22 of Vol-1								
	Basic rate	*1488.00*							
3	20mm Aggregates								
	at 0.69 cum		1	17.25			17.25		
	25 x 0.69 = 17.25								
		cum					17.25	1350.00	23287.50
	Pg No A-38 It No 4 of PWD SR 2021-22 of Vol-2								
	Basic rate	*1350.00*							
B	LABOUR COMPONETS								
4	Mason Class - 2		1				1.00		
		Day					1.00	496.22	496.22
	Pg No A-51 It No 23 of PWD SR 2021-22								
	Basic rate	*496.22*							
5	Mazdoor Heavy		2				2.00		
	(Shifting of Materials for mixing Concrete and Casting of Kerbs)	Day					2.00	486.22	972.44
	Pg No A-52 It No 1 of PWD SR 2021-22								
	Basic rate	*486.22*							

Scanned with CamScanner

Sl No	Description of work	Unit	No	Length m	Breadth m	Depth m	Quantity	Rate In Rs	Amount In Rs
6	Mazdoor Light		8				8.00		
	(Shifting of Materials for mixing Concrete and Casting of Kerbs)	Day					8.00	486.22	3889.76
	Pg No A-52 It No 2 of PWD SR 2021-22								
	Basic rate	*486.22*							
C	Machinery								
7	Concrete Mixer - 1m3								
			8				8.00		
		hour					8.00	387.00	3096.00
	Pg No A-43 It No 6 of PWD SR 2021-22								
	Basic rate	*387.00*							
8	Generator 33KVA								
			8				8.00		
		hour					8.00	2865.00	22920.00
	Pg No A-44 It No 36 of PWD SR 2021-22								
	Basic rate	*2865.00*							
9	Needle Vibrator								
			2	8.00			16.00		
		hour					16.00	395.00	6320.00
	Pg No A-46 It No 82 of PWD SR 2021-22								
	Basic rate	*395.00*							
	For Fixing In Site								
D	MATERIAL COMPONENT FOR CM 1:3								
	25cum of Concrete Can be used to cast 833 No of Kerbs (1850m Length)								
	For pointing of 1850 m of Kerb it requires 2.29 cum of CM (1850/0.45=4111),(4111x0.4x0.14)=2.29								
10	Cement								
	For 1cum of CM it requires 10.2 Bags of Cement								
	For 2.29 cum of CM it requires		=	10.2	X	2.29			
	kgs		=		23.358				
			1	23.36			23.36		
		Bag					23.36	447.00	10441.92
	Pg No A-39 It No 29 of PWD SR 2021-22 of Vol-1								
	Basic rate	*447.00*							
11	Coarse Sand								
	For 1cum of CM it requires 1.07 cum of Sand								
	For 2.29 cum of CM it requires		=	1.07	X	2.29			
	cum		=		2.4503				
	at 0.43 cum		1	2.45			2.45		
		cum					2.45	1488.00	3645.60
	Pg No A-41 It No 74 of PWD SR 2021-22 of Vol-1								
	Basic rate	*1488.00*							

9Col

Scanned with CamScanner

Sl No	Description of work	Unit	No	Length m	Breadth m	Depth m	Quantity	Rate In Rs	Amount In Rs
	1 Mazdoor Can fix 10m length of Kerb for One Day , No of Days required to fix 1850 m length = 1850 / 10 = 185								
12	Mazdoor Heavy		185				185.00		
		Day					185.00	486.22	89950.70
	Pg No A-52 It No 1 of PWD SR 2021-22								
	Basic rate	*486.22*							
13	Mazdoor Light		185				185.00		
		Day					185.00	486.22	89950.70
	Pg No A-52 It No 2 of PWD SR 2021-22								
	Basic rate	*486.22*							
								A	342486.84
	Add 1% Water Charges on A								3424.87
								Sub Total	345911.71
								Over Head Charges at 10%	34591.17
								Sub Total 1	380502.88
								Add Contractor's Profit 10% (10% of Total + Over Head Charges)	41855.32
	No of Kerbs For 25cum of M 20 Concrete	=	25.00 / 0.03	=	833.00	Nos		Total	422358.20
	(For 1 Kerb volume of Concrete = ((avg(114:165)x400x450))mm3 = 0.03 cum)								
							For 1 No = 418553.17 / 833 =		507.03
								Say Rs.	507.00

Rupees Five Hundred and Seven Only

Certificate.

1 This DATA RATE as been prepared as per PWD SR, Bangalore circle for year 2021-22
2 The area comes within the Bruhat Bangalore Mahanagara Palike limits.
3 The provisions made in the estimate are necessary and essential.
4 The Above Rate Analysis is for preparation of Estimation Only.
5 The Above Rate Analysis Applicable for Yelahanka Zone Only.

Assistant Engineer

Assistant Executive Engineer

Executive Engineer

"Approved"

ಅಧೀಕ್ಷಕ ಅಭಿಯಂತರರು 18/8/2022
ಯಲಹಂಕ ವಲಯ
ಬೃಹತ್ ಬೆಂಗಳೂರು ಮಹಾನಗರ ಪಾಲಿಕೆ

Scanned with CamScanner

BRUHAT BANGALORE MAHANAGARA PALIKE

Executive Engineer Project Division, Yelahanka Zone

RATE ANALYSIS - ONE LINE DRESSING

Providing one line dressing to granite stone slab / granite stone masonry as per specifications as directed by the Engineer in Charge of the work (excluding GST and Area Leading Charges)

Considering Stone Chisteler - 1 No, Mazdoor Light - 1 No for Dressing per Day

Sl No	Description of work	Unit	No	Length m	Breadth m	Depth m	Quantity	Rate In Rs	Amount In Rs
A	LABOUR COMPONETS								
1	For One Line Dressing of B S Slab it requires Stone Chistler of 1 No and Mazdoor light of 1 No								
	For One Day One Stone Chistler can dress upto 5 Sqmtr								
	Stone Chistler		1				1.00		
		Day					1.00	506.22	506.22
	Pg No A-50 It No 24 of PWD SR 2021-22								
	Basic rate	*506.22*							
	Mazdoor Light		1				1.00		
		Day					1.00	486.22	486.22
	Pg No A-52 It No 2 of PWD SR 2021-22								
	Basic rate	*486.22*							
								Sub Total	992.44
								Over Head Charges at 10%	99.24
								Sub Total 1	1091.68
								Add Contractor's Profit 10% (10% of Total + Over Head Charges)	120.08
								Total	1211.76
	For One Day One Stone Chistler can dress upto 5 Sqmtr						5.00	sqm	
							For 1 sqm = 1200.85 / 5 =		242.35
								Say Rs.	242.00

Rupees Two Hundred and Forty Two Only

Certificate.

1 This DATA RATE as been prepared as per PWD SR, Bangalore circle for year 2021-22
2 The area comes within the Bruhat Bangalore Mahanagara Palike limits.
3 The provisions made in the estimate are necessary and essential.
4 The Above Rate Analysis is for preparation of Estimation Only.
5 The Above Rate Analysis Applicable for Yelahanka Zone Only.

Assistant Engineer

Assistant Executive Engineer

Asst. Executive Engineer
Project Division
Yelahanka Zone
BBMP, Bangalore - 92

Executive Engineer

Executive Engineer
Project Division
Yelahanka Zone
BBMP, Bangalore-92

"Approved"

17/6/2022

ಅಧೀಕ್ಷಕ ಅಭಿಯಂತರರು
ಯಲಹಂಕ ವಲಯ
ಬೃಹತ್ ಬೆಂಗಳೂರು ಮಹಾನಗರ ಪಾಲಿಕೆ

Scanned with CamScanner

BRUHAT BANGALORE MAHANAGARA PALIKE					
Executive Engineer Project Division, Yelahanka Zone					
Rate Analysis for Removing and Resetting of Cobble Stone					
Sl No.	Description	Unit	Qty	Rate	Amount
	Removing and Resetting of Cobble Stone				
	Consider 10.00 Sqm				
	Labour				
A	Tile Layer(A-51, Sl.No-35 Zone1)	Day	1	496.22	496.22
B	Mazdoor light (A-52, Sl.No-2 Zone1)	Day	4	486.22	1944.88
	Material				
A	Stone dust (From Vol. I, Item no. 3.12 Rate analysis Pg No. 111) (10SqmX0.05m=0.50Cum)	Cum	0.5	1390.48	695.24
			Total		3136.34
		Add Over Head Charges 10%			313.63
		Add Contractor's Profit 10% (10% of Total + Over Head Charges)			345.00
		Cost of Rs. 10.00 Sqm			3794.97
		Rate per Sqm			379.50
		Round Off			0.50
		Net Rate Per Sqm			380.00

Rupees Three Hundred and Eighty Only

Certificate.

1 This DATA RATE as been prepared as per PWD SR, Bangalore circle for year 2021-22
2 The area comes within the Bruhat Bangalore Mahanagara Palike limits.
3 The provisions made in the estimate are necessary and essential.
4 The Above Rate Analysis is for preparation of Estimation Only.
5 The Above Rate Analysis Applicable for Yelahanka Zone Only.

Assistant Engineer

Asst. Exec. Engineer
Project Division
Yelahanka Zone
BBMP, Bangalore - 92

Executive Engineer
Project Division
Yelahanka Zone
BBMP, Bangalore-92

"Approved"

13/6/2022

ಅಧೀಕ್ಷಕ ಅಭಿಯಂತರರು
ದಾಲತಂಳ ವಲಯ
ಬೃಹತ್ ಬೆಂಗಳೂರು ಮಹಾನಗರ ಪಾಲಿಕೆ

Scanned with CamScanner

BRUHAT BANGALORE MAHANAGARA PALIKE

Executive Engineer Project Division, Yelahanka Zone

RATE ANALYSIS - MACHINE CUTTING

Providing Machine Cutting edges to B S slab 2.5 cms. wide as per specifications. (only chamfered length shall be recorded) inclusive of all Taxes complete, as directed by the Engineer in Charge of the work (excluding Area Leading Charges)

For One Day It requires Stone Cutter - 1 No, Mazdoor Light - 1 No for Cutting

Sl No	Description of work	Unit	No	Length m	Breadth m	Depth m	Quantity	Rate In Rs	Amount In Rs
A	MATERIAL COMPONENT								
1	Cost of Cutting Blades								
	Consider one blade will work out to cut 25 mtr length of B S Slab edges								
	for cutting 100 mtr length of edges of B S Slab Blade required is 4 Nos		4				4.00		
		Nos					4.00	120.00	480.00
	Basic rate	*120.00*							
B	HIRE CHARGES								
2	Hire Charges of Cutting Machine								
	Consider one cutting will work out to cut 25 mtr length of B S Slab edges a Day								
	for cutting 100 mtr length of edges of B S Slab, Cutting Machine required is 4 Nos (considering Machine Works for 8 hrs a Day)		4	8.00			32.00		
		hr					32.00	364.00	11648.00
	Pg No A-43 It No 5 of PWD SR 2021-22								
	Basic rate	*364.00*							
3	Hire Charges of Generator (33KVA Capacity)								
	Genarator requires same Days as required by Cutting Machine								
			4	8.00			32.00		
		hr					32.00	496.00	15872.00
	Pg No A-44 It No 37 of PWD SR 2021-22								
	Basic rate	*496.00*							
C	LABOUR COMPONETS								
4	For Machine Cutting of B S Slab it requires Stone Cutter of 1 No and Mazdoor light of 1 No								
	For Cutting 100mtr Length it requires 4 Days								
	Stone Cutter		4				4.00		
		Day					4.00	506.22	2024.88
	Pg No A-49 It No 2 of PWD SR 2021-22								
	Basic rate	*506.22*							

Scanned with CamScanner

Sl No	Description of work	Unit	No	Length m	Breadth m	Depth m	Quantity	Rate In Rs	Amount In Rs
	Mazdoor Light		4				4.00		
		Day					4.00	486.22	1944.88
	Pg No A-52 It No 2 of PWD SR 2021-22								
	Basic rate	*486.22*							
								Sub Total	31969.76
								Over Head Charges at 10%	3196.98
								Sub Total 1	35166.74
								Add Contractor's Profit 10% (10% of Total + Over Head Charges)	3868.34
								Total	39035.08
	For 100m Length	100			=	100.00	m		
						For 1 m = 38683.41 / 100 =			390.35
								Say Rs.	390.00

Rupees Three Hundred and Ninety Only

Certificate.

1 This DATA RATE as been prepared as per PWD SR, Bangalore circle for year 2021-22
2 The area comes within the Bruhat Bangalore Mahanagara Palike limits.
3 The provisions made in the estimate are necessary and essential.
4 The Above Rate Analysis is for preparation of Estimation Only.
5 The Above Rate Analysis Applicable for Yelahanka Zone Only.

Assistant Engineer

Asst. Executive Engineer

Asst. Executive Engineer
Project Division
Yelahanka Zone
BBMP, Bangalore - 92

Executive Engineer

Executive Engineer
Project Division
Yelahanka Zone
BBMP, Bangalore-92

"Approved"

17/6/2022

ಅಧೀಕ್ಷಕ ಅಭಿಯಂತರರು
ಯಲಹಂಕ ವಲಯ
ಬೃಹತ್ ಬೆಂಗಳೂರು ಮಹಾನಗರ ಪಾಲಿಕೆ

Scanned with CamScanner